

MEMORANDUM

February 28, 2014

From: Michael Langley, Senior Project Manager, Arizona Branch, Regulatory Division

To: File

Subject: Approved Jurisdictional Determination for Sierrita Mine (SPL-2011-00160-MWL)

On December 12, 2012, Freeport McMoRan Sierrita, Inc. submitted a request for an Approved Jurisdictional Determination (AJD) for approximately 33,459 acres associated with the Sierrita Mine in Pima County, Arizona. This Memorandum for the Record (MFR) documents my determination regarding the extent of federal jurisdiction in accordance with existing regulations and Post-Rapanos/Carabell guidance.

I completed an initial review of mapping of ordinary high water mark indicators (OHWMs) and provided comments to the applicant on August 25, 2013. The applicant revised the OHWM mapping as requested and resubmitted their documentation on September 24, 2013. The delineation indicated that ephemeral washes are found on the Sierrita property but no wetlands or other special aquatic sites, or intermittent or perennial drainages exist on the Sierrita property.

The delineation report from the applicant provided an analysis of three separate drainage areas, or “divisions” on the Sierrita property. The purpose of the analysis was to support the OHWM mapping conducted on the property and to analyze by division whether a significant nexus exists between the ephemeral washes (non-relatively permanent waters [NRPWs]) mapped on the property, and the nearest Traditional Navigable Waterway (TNW), which is Reach A of the Santa Cruz River. The applicant concluded that 75 of the ephemeral wash reaches should be considered isolated waters because they are cut-off from a TNW by the presence of the Sierrita mine complex, which effectively retains run-on stormwater on the site and doesn’t allow it to continue further downstream to a TNW. The applicant also concluded that 282 ephemeral wash reaches should not be considered jurisdictional because they lack a significant nexus to a TNW.

There are two existing established TNWs associated with the Santa Cruz River that are relevant to this delineation. Study Reach A consists of a 22-mile portion of the Santa Cruz extending between the Tubac and Continental stream gage stations and is the closest TNW to the project site. Study Reach B is a 32-mile reach located approximately 32 river miles downstream from this site between the Rogers Road Wastewater Treatment Plant and Pima/Pinal County line.

The applicant’s delineation report divides the property into three divisions based on drainage patterns and the drainage path for those areas to the Santa Cruz River.

Demetrie Division. This division is the southernmost division and stormwater from this drainage area eventually flows into Study Reach A for the Santa Cruz River. This division includes 14,833 acres of the project site and three wash systems: Demetrie and Esperanza Washes and an unnamed wash.

Continental Division. This division is the central drainage area (9,090) and consists of some washes that originate up-gradient from the mine and flow between mine features to eventually reach Study Reach A and other washes that have been truncated to some extent by the presence of the mine.

Sahuarita Division. This division consists of a 9,536-acre drainage area on the northern portion of the mine property. Washes upstream from the mined area are cut off from downstream drainages by the mined area and the washes downstream from the mined area have been significantly truncated by the mine. For the wash reaches that do eventually connect to the Santa Cruz River, the connection exists downstream from the Reach A TNW and upstream from the Reach B TNW.

Isolated Waters.

As mentioned previously, 75 of the ephemeral wash reaches have been considered isolated waters in the applicant's submittal because they are cut-off from a TNW by the presence of the Sierrita mine complex.

Determination: I concur with the applicant's assertion that the 75 washes described in their JD report as "isolated waters" should be classified as isolated waters and not subject to the Corps's jurisdiction under Section 404 of the Clean Water Act. This determination is consistent with previous isolated waters determinations for cut-off washes upstream from this mine.

NRPWs (Significant Nexus Determinations).

Demetrie and Continental Subdivisions. The ephemeral washes delineated by the applicant within the Demetrie Division have a significant nexus with the Santa Cruz River Study Reach A TNW. The wash outlets along the eastern edge of the property are located between about 1.5 and 3 miles from the TNW and clearly connect to the TNW via off-site ephemeral washes that provide a tributary connection. The close proximity of these washes to the TNW and the large watershed area associated with these washes indicates that the washes have a significant physical, chemical, and biological relationship to the TNW. Although the watercourses are ephemeral and only flow in response to storm events, this is typical for all tributary flows in this area. The short duration of flow still provides substantial movement of storm runoff, including any pollutants, sediments, and nutrients, into the TNW. These short duration flows do support xeroriparian plant communities along portions of the tributaries and in the TNW itself. For these reasons, I assert that the drainages assessed within these two divisions have a significant nexus with the Santa Cruz River Reach A TNW.

Sahuarita Division. As described above, much of the drainage area for this division has been cut-off by the presence of the mine, which effectively retains drainage flows on-site, not allowing those flows to reach downstream reaches of the wash network. The fragmented washes located between the mine complex and the Santa Cruz River have a very small drainage area and provide a minimal contribution to the overall flow regime between the mine and the river. In addition, flows from these areas connect to the Santa Cruz River downstream from the Reach A TNW and upstream from the Reach B TNW. For these reasons, I assert that the washes within the Sahuarita Division do not have a significant nexus to a TNW.